

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Michael Gauselmann
Assignee: Atronic International GmbH
Title: Multicolor Top Light For Gaming Machines
Serial No.: 10/755,770 Filing Date: January 12, 2004
Examiner: Omkar Deodhar Group Art Unit: 3714
Docket No.: ATR-A-127 Conf. no. 1292

San Jose, California
January 26, 2009

Mail Stop Appeal Brief
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF PURSUANT TO 37 CFR 41.37

Dear Commissioner:

This Appeal is from the examiner's final rejection, dated October 24, 2009.

I. REAL PARTY IN INTEREST

The real party in interest is Atronic International GmbH.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

III. STATUS OF CLAIMS

Claims 1 and 3-23 are pending and have been rejected. The rejection of all Claims 1 and 3-23 is being appealed.

Claim 2 was previously cancelled.

IV. STATUS OF AMENDMENTS

All amendments have been entered. There have been no amendments after the final office action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Most slot machines in a casino have a top light consisting of three different colored segments. The top lights can be seen across the room by the casino attendants. Each gaming jurisdiction specifies the meanings of various combinations of illuminated segments. For example, the illumination of a green segment and a red segment may mean that the slot machine needs to be refilled with coins. Prior art gaming machines used a white light source, such as a light bulb, in each segment, and the segment color for a particular slot machine was permanently defined by the color of a translucent plastic cylinder around the white light source. Therefore, for each jurisdiction, the prior art slot machine manufacturer had to custom-configure the top light **hardware**, which takes time and limits distribution.

The present invention is a programmable top light system in a gaming device, such as a slot machine. A slot machine using the programmable top light is shown in Fig. 2 of the application, reproduced below, where each of the top light segments 18, 19, and 20 contains red, green, and blue LEDs, and a programmed controller is incorporated in the gaming device to control the red, green, and blue LEDs in each segment so that each segment can be any color, including white (page 6, lines 3-11). This allows the same top light system hardware to be used in all jurisdictions, where different jurisdictions specify different colors for each segment and specify the illuminations of different segments to convey information about the machine, such as the need for maintenance, etc. (page 6, lines 12-18 and 27-29).

Therefore, the top light hardware for each jurisdiction is the same, and the color of each segment is programmed by the user, manufacturer, or automatically (page 1, lines 24-27; page 6, lines 3-11 and 27-29). Therefore, the top light hardware does not need to be customized for each jurisdiction.

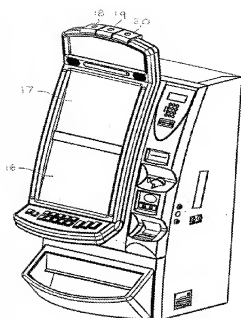


Fig. 2

The top light system for a single segment 18, 19, or 20 is shown schematically in Fig. 7, reproduced below.

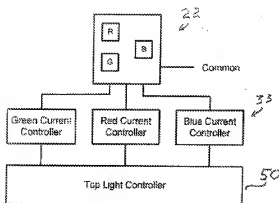


Fig. 7

The programmable controller 50 is programmed, based on the jurisdiction, to control the red, green, and blue current controllers 33 for the RGB LEDs 22 so that the proper color (e.g., orange, green, pink, yellow, white, blue, purple, etc.) is emitted by the segment when the segment is illuminated (page 4, line 30, to page 5, line 6; page 5, line 25, to page 6, line 2).

Claim 1 and its support (in brackets) in the application are as follows:

1. A gaming device [Fig. 1 or 2; page 3, lines 2-15] comprising:

- a housing [Fig. 1 or 2; page 3, lines 2-15];

- a programmable top light on a top of the housing for conveying information about the gaming device, the top light comprising a plurality of segments, each segment comprising a combination of red, green, and blue light emitting diodes (LEDs) [segments 13-15, 18-20; LEDs 22 in Figs. 4-7; page 3, lines 9-15];

- a programmable controller electrically connected to each of the red, green, and blue LEDs in each segment, the controller comprising variable current sources connected to supply a controllable current to each of the red, green, and blue LEDs in each segment to control intensities of light emitted by each of the red, green, and blue LEDs in each segment [variable current sources 33 in Fig. 7; page 5, line 25, to page 6, line 2]; and

- the controller also comprising a programmable control portion that is programmable for controlling the variable current sources to supply selected currents to the red, green, and blue LEDs in each segment to cause any of a variety of colors to be emitted from each segment for conveying information about the gaming device, such that the programmable top light may be used in any of a variety of jurisdictions that have different specifications for the color of light emitted by each segment of a top light,

- the controller being programmed to cause each of the segments to emit one or more selected colors from the variety of colors that can be emitted from each segment [programmable controller 50 in Figs. 7 and 8; page 5, line 25, to page 6, line 11].

Claim 11 and its support (in brackets) in the application are as follows:

11. The device of Claim 1 further comprising a processor and a memory, the memory being programmed for generating top light control codes for at least one jurisdiction, the top light control codes being applied to at least one terminal of the controller to set a particular color emitted by each of the segments corresponding to the top light control codes [processor 40 and its memory in Fig. 3; controller 50 in Fig. 8 shows inputs for control codes; page 6, lines 3-18].

Claim 12 and its support (in brackets) in the application are as follows:

12. The device of Claim 1 further comprising a processor and a memory, the memory being programmed for generating top light control codes for multiple jurisdictions, the top light control codes being applied to at least one terminal of the controller to set a particular color emitted by each of the segments corresponding to the top light control codes [processor 40 and its memory in Fig. 3; controller 50 in Fig. 8 shows inputs for control codes; page 6, lines 3-18].

Claim 13 and its support (in brackets) in the application are as follows:

13. The device of Claim 1 further comprising at least one terminal of the controller receiving digital codes, wherein the controller converts the digital codes to corresponding currents applied to the red, green, and blue LEDs in each segment for controlling brightness levels of the red, green, and blue LEDs to set a particular color emitted by each of the segments corresponding to the digital codes [controller 50 in Fig. 8 shows inputs for control codes; page 6, lines 3-18].

Claim 17 and its support (in brackets) in the application are as follows:

17. A method for controlling a programmable top light on a gaming device [Fig. 1 or 2; page 3, lines 2-15], the top light comprising a plurality of segments, each segment comprising a combination of red, green, and blue light emitting diodes (LEDs) whose individual intensities are controllable to create a variety of light colors for conveying information about the gaming device [segments 13-15, 18-20; LEDs 22 in Figs. 4-7; page 3, lines 9-15], the method comprising:

programming a controller electrically connected to each of the red, green, and blue LEDs in each segment, programming the controller comprising controlling variable current sources to supply a controllable current to each of the red, green, and blue LEDs in each segment to control intensities of light emitted by each of the red, green, and blue LEDs in each segment to cause any of a variety of colors to be emitted from each segment for conveying information about the gaming device, such that the programmable top light may be used in any of a variety of jurisdictions that have different specifications for the color of light emitted by each segment of a top light [programmable controller 50 in Figs. 7 and 8; variable current sources 33 in Fig. 7; page 5, line 25, to page 6, line 11]; and

applying currents, by the controller, to one or more of the red, green, and blue LEDs, corresponding to the programming of the controller, to control brightness levels of the red, green, and blue LEDs to convey information about the gaming device [page 6, lines 5-7].

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The ground of rejection to be reviewed on appeal is the rejection of Claims 1, 3-9, 11-14, 16-18, and 20-23 under 35 USC 103(a) as being unpatentable over Applicant's admitted prior art in view of Lys et al. (US 6,720,745).

Only the independent Claims 1 and 17 and the dependent Claims 11, 12, and 13 are being specifically argued herein.

VII. ARGUMENT

Rejection of Claims 1, 11-13, and 17 Under 35 USC 103

In the final office action, independent Claims 1 and 17 and dependent Claims 11-13 were rejected as being obvious over Applicant's admitted prior art in view of Lys et al. (US 6,720,745).

The relevant admitted prior art is a top light on a gaming machine that has three colored cylindrical segments stacked on top of each other. The color emitted by each segment is permanently fixed at the factory by selecting a translucent plastic ring of a particular color that surrounds a white light source inside the segment. Different jurisdictions require different colors and orders of the segments in the top light, where the particular segments energized convey different information to a casino operator. Therefore, the top light must be custom tailored for each jurisdiction before affixing it to the slot machine by the manufacturer. This adds construction cost and delay, and the slot machines could not be used in other jurisdictions.

Lys was cited for its general teaching of a multi-color LED lighting system that can use combinations of red, green, and blue LEDs to create any color, controlled by a computer. Lys gives many examples of the use of computer-controlled lighting, but no use related to a top light for a gaming machine. However, even if Lys mentioned the use of colored LEDs in a top light of a gaming machine, that would not have made the claims obvious, as described below.

The examiner did not identify any prior art that suggested to make the light segments in the top light of a slot machine identical and programmable so that the particular color emitted by each

segment is programmed by a controller, as claimed. The examiner concluded that it would have been obvious to use the Lys lighting system for any purpose. The examiner considered the claimed top light an “intended use,” which is not considered for patentability.

Lys, at most, would suggest to substitute a fixed-color light source in a top light with LEDs to exactly duplicate the fixed color. The top light segment colors would not be programmable, since Lys does not suggest to add that function to a top light, and there is no motivation provided by Lys to add that function. For example, any white light source could be duplicated by equal amounts of red, green, and blue light from LEDs, so the RGB LEDs would be hardwired to create white light. A green light of a traffic light would be substituted by green LEDs. Any resulting light source would have a **fixed** color set by fixed resistors, specific ratios of RGB LEDs, or just monochromatic LEDs that are designed to output the desired color. Lys does not suggest to change the **function** of any aspect of a top light of a gaming device.

Applicant’s claims do not claim an intended use of RGB LEDs. Applicant’s claims specifically recite the top light and a programmed controller that controls the variable LED current sources for the top light segments to emit a particular color from a variety of possible colors.

The inventiveness of Applicant’s invention is not the technology used to create a programmable color, but the non-obviousness in replacing the fixed, jurisdiction-specific color top light with the same top light hardware for each jurisdiction, where the color of each top light segment is programmed by a controller in the gaming machine to display any color in each segment. There are great advantages to the invention, such as being able to ship the identical slot machine to many different jurisdictions irrespective of the jurisdictions’ different specifications for the top light. The casino operators may themselves select one of a plurality of controller settings for setting the segment colors.

Since most inventions are combinations of known things, the examiner must show some suggestion for the combination. Lys cannot be used to reject every future application of a programmable LED light source. Since the admitted prior art is a top light with fixed color segments, and Applicant’s invention adds a function (segment color programmability) to this top light that saves cost and time, such an invention is very significant and cannot be dismissed using hindsight reconstruction. Those in the industry had not even realized that the prior art top light could be improved upon since it has not changed for 30 years. Applicant thought outside the box and improved on this prior art top light. The examiner, by simply stating it is obvious without any

suggestion, does not appreciate that the same top light was used for 30 years without change, and Applicant has just improved it.

As the Federal Circuit outlined in *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (2004), in making the assessment of differences between the prior art and the claimed subject matter, § 103 specifically requires consideration of the claimed invention “as a whole.” Inventions typically are new combinations of existing principles or features. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (1983) (noting that “virtually all [inventions] are combinations of old elements”). The “as a whole” instruction prevents evaluation of the invention part by part. *Ruiz*, 357 F.3d at 1275. Without this important requirement, an obviousness assessment might successfully break an invention into its component parts, then find a prior art reference corresponding to each component. *Id.* This line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components. Further, this improper method would discount the value of combining various existing features or principles in a new way to achieve a new result--often the essence of invention. *Id.*

See *Heidelberger Druckmaschinen AG v. Hantscho Commercial Prods., Inc.*, 21 F.3d 1068, 1072 (1994) (“When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make such a combination.”); see also *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (1990) (it is insufficient that prior art shows similar components, unless it also contains some teaching, suggestion, or incentive for arriving at the claimed structure); accord *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051-52 (1988) (it is impermissible to reconstruct the claimed invention from selected pieces of prior art absent some suggestion, teaching, or motivation in the prior art to do so); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (1985) (it is insufficient to select from the prior art the separate components of the inventor’s combination, using the blueprint supplied by the inventor).

Independent Claim 17 is a method version of Claim 1 and is patentable for the same reasons given above for Claim 1. Accordingly, it is respectfully submitted that all pending claims are patentable.

Claim 11 recites that a processor and a memory generate “top light control codes for at least one jurisdiction,” and these codes are applied to the controller to set the colors of the segments. This is not an intended use since the programmed memory and codes are recited, and Lys’ computer could

not suggest the claimed programming. Further, Lys does not suggest changing the function of a gaming device top light. Therefore, Claim 11 is particularly non-obvious.

Claim 12 recites that a processor and a memory generate “top light control codes for multiple jurisdictions,” and these codes are applied to the controller to set the particular colors of the segments. This is not an intended use since the programmed memory and codes are recited, and Lys’ computer could not suggest the claimed programming. Further, Lys does not suggest changing the function of a gaming device top light. Therefore, Claim 12 is particularly non-obvious.

Claim 13 recites at least one terminal of the controller receiving digital codes, wherein the controller converts the digital codes to corresponding currents applied to the red, green, and blue LEDs in each segment for controlling brightness levels of the red, green, and blue LEDs to set a particular color emitted by each of the segments corresponding to the digital codes.” No prior art top light system has such a controller. This is not an intended use. Lys does not suggest changing the function of a gaming device top light. Therefore, Claim 13 is particularly non-obvious.

Accordingly, since the independent claims have been shown to be allowable over the combination of all the cited art, it is respectfully submitted that all claims are allowable. Should the Board or the examiner have any questions or claim clarifications, please call the undersigned at (408) 382-0480 x202.

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/Brian D Ogonowsky/
Attorney for Applicant(s)

January 26, 2009
Date of Signature

Respectfully submitted,

/Brian D Ogonowsky/

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VIII. CLAIMS APPENDIX

1. (rejected) A gaming device comprising:

a housing;

a programmable top light on a top of the housing for conveying information about the gaming device, the top light comprising a plurality of segments, each segment comprising a combination of red, green, and blue light emitting diodes (LEDs);

a programmable controller electrically connected to each of the red, green, and blue LEDs in each segment, the controller comprising variable current sources connected to supply a controllable current to each of the red, green, and blue LEDs in each segment to control intensities of light emitted by each of the red, green, and blue LEDs in each segment; and

the controller also comprising a programmable control portion that is programmable for controlling the variable current sources to supply selected currents to the red, green, and blue LEDs in each segment to cause any of a variety of colors to be emitted from each segment for conveying information about the gaming device, such that the programmable top light may be used in any of a variety of jurisdictions that have different specifications for the color of light emitted by each segment of a top light,

the controller being programmed to cause each of the segments to emit one or more selected colors from the variety of colors that can be emitted from each segment.

2. (cancelled)
3. (rejected) The device of Claim 1 wherein the plurality of segments is two segments.
4. (rejected) The device of Claim 1 wherein the plurality of segments is three segments.
5. (rejected) The device of Claim 1 wherein the red, green, and blue LEDs comprises a module containing a red LED chip, a green LED chip, and a blue LED chip.
6. (rejected) The device of Claim 1 wherein the variety of light colors for conveying information about the gaming device comprises flashing light.
7. (rejected) The device of Claim 1 wherein the top light forms a cylindrical structure.

8. (rejected) The device of Claim 1 wherein the top light comprises a plurality of segments side-by-side.
9. (rejected) The device of Claim 1 further comprising a display screen in the housing.
10. (rejected) The device of Claim 1 further comprising multiple reels in the housing.
11. (rejected) The device of Claim 1 further comprising a processor and a memory, the memory being programmed for generating top light control codes for at least one jurisdiction, the top light control codes being applied to at least one terminal of the controller to set a particular color emitted by each of the segments corresponding to the top light control codes.
12. (rejected) The device of Claim 1 further comprising a processor and a memory, the memory being programmed for generating top light control codes for multiple jurisdictions, the top light control codes being applied to at least one terminal of the controller to set a particular color emitted by each of the segments corresponding to the top light control codes.
13. (rejected) The device of Claim 1 further comprising at least one terminal of the controller receiving digital codes, wherein the controller converts the digital codes to corresponding currents applied to the red, green, and blue LEDs in each segment for controlling brightness levels of the red, green, and blue LEDs to set a particular color emitted by each of the segments corresponding to the digital codes.
14. (rejected) The device of Claim 1 wherein the red, green, and blue LEDs are controlled to convey a denomination of the gaming device.
15. (rejected) The device of Claim 1 wherein the red, green, and blue LEDs are controlled to convey maintenance information to an operator of the gaming device.
16. (rejected) The device of Claim 1 wherein the top light further comprises a light diffuser, at least partially surrounding the red, green, and blue LEDs, for mixing the light colors.
17. (rejected) A method for controlling a programmable top light on a gaming device, the top light comprising a plurality of segments, each segment comprising a combination of red, green, and blue light emitting diodes (LEDs) whose individual intensities are controllable to create a variety of light colors for conveying information about the gaming device, the method comprising:

programming a controller electrically connected to each of the red, green, and blue LEDs in each segment, programming the controller comprising controlling variable current sources to supply a controllable current to each of the red, green, and blue LEDs in each segment to control intensities of light emitted by each of the red, green, and blue LEDs in each segment to cause any of a variety of colors to be emitted from each segment for conveying information about the gaming device, such that the programmable top light may be used in any of a variety of jurisdictions that have different specifications for the color of light emitted by each segment of a top light; and

applying currents, by the controller, to one or more of the red, green, and blue LEDs, corresponding to the programming of the controller, to control brightness levels of the red, green, and blue LEDs to convey information about the gaming device.

18. (rejected) The method of Claim 17 wherein applying currents to one or more of the red, green, and blue LEDs comprise applying currents to convey a denomination of the gaming device.

19. (rejected) The method of Claim 17 wherein applying currents to one or more of the red, green, and blue LEDs comprise applying currents to convey maintenance information to an operator of the gaming device.

20. (rejected) The method of Claim 17 further comprising detecting a change in a denomination being used in the gaming device and applying currents to one or more of the red, green, and blue LEDs to identify the denomination being actively used in the gaming device.

21. (rejected) The device of Claim 1 wherein the controller comprises a processor.

22. (rejected) The device of Claim 1 wherein the controller comprises firmware.

23. (rejected) The device of Claim 1 wherein the controller is programmed to cause the variable current sources to supply current ranging between zero current and a maximum current to the red, green, and blue LEDs in each segment.

IX. EVIDENCE APPENDIX

There is no evidence in this appendix.

X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings in this appendix.